



UNITED STATES PATENT AND TRADEMARK OFFICE

m. h.
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/453,498	12/03/1999	BRUCE R. SMITH	013550-069	2714

7590 05/09/2003

MICHAEL W. FERRELL, ESQ.
FERRELLS, PLLC
P.O. BOX 312
CLIFTON, VA 20124-1706

EXAMINER

KIM, EUGENE LEE

ART UNIT	PAPER NUMBER
----------	--------------

3721

DATE MAILED: 05/09/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/453,498

Applicant(s)

SMITH ET AL.

Examiner

Eugene Kim

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Handel et al (#4,721,500) in view of Gospe et al (#6,029,730). Handel et al substantially show the claimed subject matter including a female and male die wherein the dies are heated with electrical resistance heaters. The heaters are not shown. Handel also discloses thermistors mounted in the dies as close as possible to the forming surfaces. (Col 7 lines 65 – col 8 line 2). Handel does not disclose the exact heating elements as claimed. Gospe et al disclose that a heater assembly in a cast-in method wherein the heating element is cast in a platen (col 4 lines 48+). Gospe et al disclose that the foil heater 62, which includes a resistor line, which is an electrically conductive material such as, nickel chromium, can be replaced with various thermoelectric devices, such as a cast-in heater. Gospe et al disclose a top and bottom plate 22, 24 which are made from an alloy material, such as, stainless steel (col 3 lines 25+). Gospe et al disclose that the heating elements are inserted in holes/recesses 30. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Handel with a heating element as taught by Gospe et al to use an alternative known thermoelectric device. Since the primary reference, Handel discloses upper and

Art Unit: 3721

lower resistance heaters, it would have been obvious to provide Handel with heater elements as taught by Gospe et al on both the upper and lower dies to provide for efficient temperature control on the heating surfaces. Regarding the actual materials being claimed, such as, the cast-in material being ferrous or non-ferrous based alloys, the examiner notes that selection of material on the basis of suitability for in the intended use is entirely obvious. See *in re Leshin*, 125 USPQ 416 (CCPA 1960). The examiner takes official notice that it is well known in the art to use resistive wires as heating elements.

3. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Applicant's arguments with respect to claims *supra* have been considered but are moot in view of the new ground(s) of rejection.

As discussed *supra*, the new secondary reference discloses that cast-in heaters are interchangeable thermoelectric heating elements.

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Duddy et al show a heating element 20 that is a resistive heater that is in a recess of platen 14 as shown in the figures. Heating element 20 may be a nickel cadmium wire or other well known resistive heater materials (col 4 lines 40+). Platen 14 is formed with various holes, depressions, recesses, and channels milled in its surface (col 3 lines 15+). Platen 14 may be manufactured of metal such as aluminum or other alloys (col 4 lines 40+).

Art Unit: 3721

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Kim whose telephone number is (703)308-1886. The examiner can normally be reached on Tuesday-Friday 7:30 a.m - 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (703)308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1148.



Eugene Kim
May 7, 2003